

ABSTRACT

When actual measurement data of a wavefront aberration of a projection optical system is input, a main controller calculates a targeted image forming characteristic of the projection optical system based on the data and a Zernike sensitivity table of the image forming characteristic that is made prior to the input. By using the Zernike sensitivity table, the targeted image forming characteristic can be calculated with only one measurement of wavefront aberration. Moreover, parameters that denote a relation between an adjustment of an adjustable specific optical element and a change in the image forming characteristics of the projection optical system is obtained in advance, and are stored in advance in a storage unit. Then, when the measurement data of the image forming characteristic of the projection optical system is input, the main controller calculates a targeted adjustment amount of the specific optical element using a relation expression between the measurement data, the parameters, and the targeted adjustment amount of the specific optical element, and adjusts the specific optical element based on the calculation results.